

IN THE CLAIMS

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims:

1. (Previously presented) An improved saw blade comprising:

a blade portion having two opposed sides which define a blade width; and
a cutting edge formed on the blade portion, the cutting edge having a cutting tip width;

the blade portion having a high precision surface finish which is less than or equal to approximately 10 Ra, and wherein the surface has reduced residual tensile stress which is produced by a process comprising the steps of

providing a high speed centrifugal finishing apparatus having an outer vessel and at least one inner vessel;

placing the saw blade in the inner vessel;

adding abrasive finishing media into the inner vessel; and

rotating the inner vessel at high speed relative to the outer vessel; the high speed rotation causing the abrasive media to surface finish the blades.

2. (Previously presented) An improved saw blade according to claim 1 wherein the saw blade is a straight saw blade and wherein the width of the blade portion is substantially the same as the width of the cutting tip.

3. (Previously presented) An improved saw blade according to claim 1 wherein the saw blade is a circular saw blade and includes an anti-kickback portion located circumferentially behind each cutting tip, and wherein the side surfaces of the anti-kickback portion are finished with a low friction surface.

4. (Original) An improved saw blade according to claim 1 wherein the high precision surface finish is in a range of between approximately 2 Ra and 6 Ra.

5. (Original) An improved saw blade according to claim 1 wherein the high precision surface finish is in a range of between approximately 2 Ra and 4 Ra.

6. (Original) An improved saw blade according to claim 1 wherein the high precision surface finish is approximately 6 Ra or less.

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Previously presented) An improved saw blade comprising:

a blade portion having two opposed sides which define the blade portion width; and

a plurality of teeth formed on the blade portion, the teeth having opposed sides, the teeth having cutting tips formed thereon which have a width, the sides of the teeth having a high precision surface finish which is less than or equal to approximately 10 Ra, and wherein the surface has reduced residual tensile stress which is obtained by a process comprising the steps of

providing a high speed centrifugal finishing apparatus having an outer vessel and at least one inner vessel;

placing the saw blade in the inner vessel;

adding abrasive finishing media into the inner vessel; and

rotating the inner vessel at high speed relative to the outer vessel; the high speed rotation causing the abrasive media to surface finish the blades.

14. (Original) An improved saw blade according to claim 13 wherein the saw blade is a straight saw blade and wherein the width of the blade portion is substantially the same as the width of the cutting tips.

15. (Previously presented) An improved saw blade according to claim 13 wherein the saw blade is a circular saw blade and includes an anti-kickback portion located circumferentially behind each cutting tip, and wherein at least a portion of the anti-kickback portion have a high precision low friction surface finish.

16. (Original) An improved saw blade according to claim 13 wherein the high precision surface finish is in a range of between approximately 2 Ra and 6 Ra.

17. (Original) An improved saw blade according to claim 13 wherein the high precision surface finish is in a range of between approximately 2 Ra and 4 Ra.

18. (Original) An improved saw blade according to claim 13 wherein the high precision surface finish is approximately 6 Ra or less.

19. (Previously presented) An improved saw blade comprising:
a blade portion having two opposed sides which define the blade portion width; and
a plurality of teeth formed on the blade portion, the teeth having opposed sides, the teeth having cutting tips attached to the teeth which have a width, the sides of the teeth having a high precision surface finish which is less than or equal to approximately 10 Ra, and wherein the surface is formed with a compressive residual stress through a process comprising the steps of

providing a high speed centrifugal finishing apparatus having an outer vessel and at least one inner vessel;

placing the saw blade in the inner vessel;

adding abrasive finishing media into the inner vessel; and

rotating the inner vessel at high speed relative to the outer vessel; the high speed rotation causing the abrasive media to surface finish the blades.

20. (Canceled)

21. (Canceled)

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25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)